

## SEQUENCE LISTING

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<120> ULTRA-SENSITIVE DETECTION SYSTEMS

<130> 01173.0003U2

<150> 60/224,939

<151> 2000-08-11

<150> 60/283,498

<151> 2000-04-12

<160> 33

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 1

Cys Gly Gly Gly Asp Pro Gly Gly Gly Arg  
1 5 10

<210> 2

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 2

Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Arg  
1 5 10

<210> 3  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 3  
Ala Gly Ser Met Leu Asp Pro Ala Gly Ser Met Leu Arg  
1 5 10

<210> 4  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 4  
Ala Gly Ser Leu Ala Asp Pro Gly Ser Leu Arg  
1 5 10

<210> 5  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 5  
Ala Leu Ser Leu Ala Asp Pro Gly Ser Gly Arg  
1 5 10

<210> 6  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 6  
Ala Leu Ser Leu Gly Asp Pro Ala Ser Gly Arg  
1 5 10

<210> 7

<211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note=synthetic  
 construct

<400> 7  
 Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg  
 1 5 10

<210> 8  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note=synthetic  
 construct

<400> 8  
 Ala Asp Pro Gly Ser Leu Ala Gly Ser Leu Arg  
 1 5 10

<210> 9  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 9  
 Met Ser Ala Ile Gln Ala Ala Trp Pro Ser Gly Thr Glu Cys Ile Ala  
 1 5 10 15  
 Lys Tyr Asn Phe His Gly Thr Ala Glu Gln Asp Leu Pro Phe Cys Lys  
 20 25 30  
 Gly Asp Val Leu Thr Ile Val Ala Val Thr Lys Asp Pro Asn Trp Tyr  
 35 40 45  
 Lys Ala Lys Asn Lys Val Gly Arg Glu Gly Ile Ile Pro Ala Asn Tyr  
 50 55 60  
 Val Gln Lys Arg Glu Gly Val Lys Ala Gly Thr Lys Leu Ser Leu Met  
 65 70 75 80  
 Pro Trp Phe His Gly Lys Ile Thr Arg Glu Gln Ala Glu Arg Leu Leu  
 85 90 95  
 Tyr Pro Pro Glu Thr Gly Leu Phe Leu Val Arg Glu Ser Thr Asn Tyr  
 100 105 110  
 Pro Gly Asp Tyr Thr Leu Cys Val Ser Cys Asp Gly Lys Val Glu His  
 115 120 125  
 Tyr Arg Ile Met Tyr His Ala Ser Lys Leu Ser Ile Asp Glu Glu Val  
 130 135 140  
 Tyr Phe Glu Asn Leu Met Gln Leu Val Glu His Tyr Thr Ser Asp Ala  
 145 150 155 160  
 Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val Met Glu Gly Thr  
 165 170 175

Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp Ala Leu Asn Met  
 180 185 190  
 Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly Glu Phe Gly Asp  
 195 200 205  
 Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala Val Lys Cys Ile  
 210 215 220  
 Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu Ala Ser Val Met  
 225 230 235 240  
 Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu Gly Val Ile Val  
 245 250 255  
 Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr Met Ala Lys Gly  
 260 265 270  
 Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser Val Leu Gly Gly  
 275 280 285  
 Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu Ala Met Glu Tyr  
 290 295 300  
 Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val  
 305 310 315 320  
 Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp Phe Gly Leu Thr  
 325 330 335  
 Lys Glu Ala Ser Thr Pro Arg Thr Arg Ala Ser Cys Gln Ser Ser Gly  
 340 345 350  
 Gln Pro Leu Arg Pro  
 355

&lt;210&gt; 10

&lt;211&gt; 536

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 10

Met Gly Ser Asn Lys Ser Lys Pro Lys Asp Ala Ser Gln Arg Arg Arg  
 1 5 10 15  
 Ser Leu Glu Pro Ala Glu Asn Val His Gly Ala Gly Gly Gly Ala Phe  
 20 25 30  
 Pro Ala Ser Gln Thr Pro Ser Lys Pro Ala Ser Ala Asp Gly His Arg  
 35 40 45  
 Gly Pro Ser Ala Ala Phe Ala Pro Ala Ala Glu Pro Lys Leu Phe  
 50 55 60  
 Gly Gly Phe Asn Ser Ser Asp Thr Val Thr Ser Pro Gln Arg Ala Gly  
 65 70 75 80  
 Pro Leu Ala Gly Gly Val Thr Thr Phe Val Ala Leu Tyr Asp Tyr Glu  
 85 90 95  
 Ser Arg Thr Glu Thr Asp Leu Ser Phe Lys Lys Gly Glu Arg Leu Gln  
 100 105 110  
 Ile Val Asn Asn Thr Glu Gly Asp Trp Trp Leu Ala His Ser Leu Ser  
 115 120 125  
 Thr Gly Gln Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Ser Asp  
 130 135 140  
 Ser Ile Gln Ala Glu Glu Trp Tyr Phe Gly Lys Ile Thr Arg Arg Glu  
 145 150 155 160  
 Ser Glu Arg Leu Leu Leu Asn Ala Glu Asn Pro Arg Gly Thr Phe Leu  
 165 170 175

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Val Arg Glu Ser Glu Thr Thr Lys Gly Ala Tyr Cys Leu Ser Val Ser
      180                      185                      190
Asp Phe Asp Asn Ala Lys Gly Leu Asn Val Lys His Tyr Lys Ile Arg
      195                      200                      205
Lys Leu Asp Ser Gly Gly Phe Tyr Ile Thr Ser Arg Thr Gln Phe Asn
      210                      215                      220
Ser Leu Gln Gln Leu Val Ala Tyr Tyr Ser Lys His Ala Asp Gly Leu
      225                      230                      235                      240
Cys His Arg Leu Thr Thr Val Cys Pro Thr Ser Lys Pro Gln Thr Gln
      245                      250                      255
Gly Leu Ala Lys Asp Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu
      260                      265                      270
Glu Val Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr
      275                      280                      285
Trp Asn Gly Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly Thr
      290                      295                      300
Met Ser Pro Glu Ala Phe Leu Gln Glu Ala Gln Val Met Lys Lys Leu
      305                      310                      315                      320
Arg His Glu Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro
      325                      330                      335
Ile Tyr Ile Val Thr Glu Tyr Met Ser Lys Gly Ser Leu Leu Asp Phe
      340                      345                      350
Leu Lys Gly Glu Thr Gly Lys Tyr Leu Arg Leu Pro Gln Leu Val Asp
      355                      360                      365
Met Ala Ala Gln Ile Ala Ser Gly Met Ala Tyr Val Glu Arg Met Asn
      370                      375                      380
Tyr Val His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn
      385                      390                      395                      400
Leu Val Cys Lys Val Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp
      405                      410                      415
Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr
      420                      425                      430

Ala Pro Glu Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val
      435                      440                      445
Trp Ser Phe Gly Ile Leu Leu Thr Glu Leu Thr Thr Lys Gly Arg Val
      450                      455                      460
Pro Tyr Pro Gly Met Val Asn Arg Glu Val Leu Asp Gln Val Glu Arg
      465                      470                      475                      480
Gly Tyr Arg Met Pro Cys Pro Pro Glu Cys Pro Glu Ser Leu His Asp
      485                      490                      495
Leu Met Cys Gln Cys Trp Arg Lys Glu Pro Glu Glu Arg Pro Thr Phe
      500                      505                      510
Glu Tyr Leu Gln Ala Phe Leu Glu Asp Tyr Phe Thr Ser Thr Glu Pro
      515                      520                      525
Gln Tyr Gln Pro Gly Glu Asn Leu
      530                      535

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&lt;210&gt; 11

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 11

Cys Gly Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg  
1 5 10

<210> 12

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 12

Gly Ser Trp Phe Ser Gly Met Cys Ala Arg  
1 5 10

<210> 13

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 13

Tyr Phe Met Thr Ser Gly Cys Asp Pro Gly Gly Arg  
1 5 10

<210> 14

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 14

Tyr Phe Met Thr Ser Gly Asp Pro Cys Gly Gly Arg  
1 5 10

<210> 15

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 15

Tyr Phe Met Thr Ser Asp Pro Gly Cys Gly Gly Arg  
1 5 10

<210> 16

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 16

Tyr Phe Met Thr Asp Pro Ser Gly Cys Gly Gly Arg  
1 5 10

<210> 17

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 17

Tyr Phe Met Asp Pro Thr Ser Gly Cys Gly Gly Arg  
1 5 10

<210> 18

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 18

Ala Gly Ser Leu Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Ala Gly  
1 5 10 15  
Ser Leu Arg

<210> 19

<211> 18

<212> DNA

<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 19  
gattagccac gtcgcgt 18

<210> 20  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 20  
gcataatagct agctctcg 18

<210> 21  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 21  
gacgacggcg acgtggctgc gc 22

<210> 22  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct

<400> 22  
acggcgacgt ggctaadc 18

<210> 23  
<211> 11  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct



<400> 23  
cgctacgta g

11

<210> 24  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct  
  
<221> VARIANT  
<222> 1-15  
<223> Xaa = any amino acid

<400> 24  
Cys Phe Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Arg  
1 5 10 15

<210> 25  
<211> 35  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct  
  
<221> VARIANT  
<222> 1-35  
<223> Xaa = any amino acid

<400> 25  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa  
1 5 10 15  
Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa  
20 25 30  
Xaa Xaa Xaa  
35

<210> 26  
<211> 34  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note=synthetic  
construct  
  
<221> VARIANT  
<222> 1-34  
<223> Xaa = any amino acid

&lt;400&gt; 26

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa  
1 5 10 15  
Xaa Xaa Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa  
20 25 30  
Xaa Xaa

&lt;210&gt; 27

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 27

Ala Gly Ser Leu Ala Gly Ser Leu Asp Pro Arg  
1 5 10

&lt;210&gt; 28

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 28

Cys Gly Trp Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg  
1 5 10

&lt;210&gt; 29

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 29

Cys Gly Trp Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Arg  
1 5 10

&lt;210&gt; 30

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 30

Cys Gly Trp Ala Gly Ser Leu Ala Asp Pro Gly Ser Leu Arg  
1 5 10

&lt;210&gt; 31

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 31

Cys Gly Trp Ala Gly Ser Leu Ala Gly Asp Pro Ser Leu Arg Cys Gly  
1 5 10 15  
Trp Ala Gly Ser Leu Ala Gly Ser Asp Pro Leu Arg  
20 25

&lt;210&gt; 32

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 32

Cys Gly Trp Ala Gly Ser Leu Ala Gly Ser Asp Pro Leu Arg  
1 5 10

&lt;210&gt; 33

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note=synthetic  
construct

&lt;400&gt; 33

Arg Leu Ser Gly Ala Asp Pro Leu Ser Gly Ala Trp Gly Cys  
1 5 10